

## Patent Abstracts of Japan

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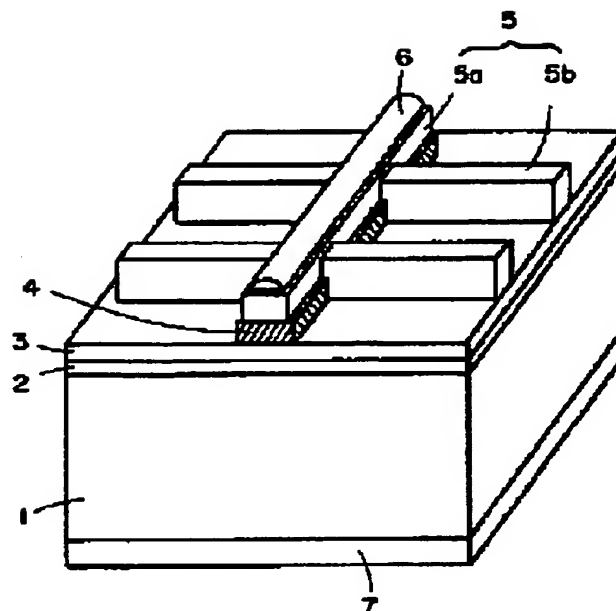
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TITLE : PHOTOVOLATIC ELEMENT



**ABSTRACT :** PROBLEM TO BE SOLVED: To effectively prevent short-circuit of a cell when a tab is soldered, by forming an insulation layer, corresponding to a soldering part, between an amorphous semiconductor and a collecting electrode, so that high conversion efficiency is obtained.

**SOLUTION:** An amorphous silicon layer 2 is formed on a crystal silicon substrate 1. And, a transparent conductive film 3 is formed on the amorphous silicon layer 2. And further, an insulation film 4 is selectively provided on the transparent conductive film 3. And further, a collecting electrode 5 is formed on the insulation film 4, and, the collecting electrode 5 consists of a bus bar 5a and a finger 5b orthogonal to the bus bar 5a. Here, the bus bar 5a is formed on the insulation film 4, meanwhile, the finger 5b is formed on the transparent conductive film 3 with no insulation layer. And, a rear surface electrode 7 is formed on a light transmission side of the crystal silicon substrate 1. And further, in the photovoltaic element, a tab 6 is soldered on the bus bar 5a of the collecting electrode 5 modularization.

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